

REMARKS

This communication is in response to the Final Office Action of August 2, 2004. Claims 1-18 were rejected. Claims 1, 8, 15, 16, and 18 were amended. Claims 1-18 are pending.

The Examiner rejected claims 1, 2, 4, 6-9, 11, 13-15, and 18 under 35 U.S.C. 102(e) as being anticipated by Ayers (U.S. Pat. No. 6,353,924). Claims 3 and 10 were rejected as being obvious over Ayers in view of Baird (U.S. Pat. No. 5,848,264). Claims 16 and 17 were rejected as being obvious over Ayers.

Applicant respectfully traverses the rejections. The Examiner has overlooked the limitations in the original claims that permit a user to define information of interest to the user to be traced. Claim 1, for example, as originally filed defined the trace data commands “as *user* trace data commands” that instruct a processor to write “*user* trace data” to a “*user* trace data register” (emphasis added on “user”). However, the Examiner’s remarks on pages 6-7 of the Final Rejection indicate that the Examiner has not fully considered the user limitations of the original claims.

Applicant has amended independent claims 1, 8, 15, 16, and 18 to clarify the user-related aspects of the original claims. Independent claims 1, 8, 15, 16, and 18 were amended to clarify that a user trace data command indicates a selection by a user of user-defined trace data to be written into the user trace data register. Additionally, the independent claims were amended to clarify that the execution of a plurality of instructions that includes one or more trace commands results in tracing a subset of program execution attributes of interest to the user. Support for the claim amendments is found in paragraphs [1146] to [1148]. Entry of the amendment to the claims is respectfully requested.

One benefit of Applicant’s claimed invention is that a user may define a subset of program execution attributes to be traced. As described in paragraphs [1146] to [1148], in one embodiment a user may select, for tracing, any type of data value that can be written to a user trace data (UTD) register. This permits flexibility in tracing a subset of data values, points, or aspects of program execution that are of interest to the user.

The Examiner has pointed out that Ayers discloses instrumentation code that includes block identifiers that permit the program sequence of instrumented blocks to be reconstructed. However, note that the objective of Ayers is to form a sequence record of the exact sequence in which blocks are executed, as described in column 5, lines 60-63. The instrumentation code of Ayers provides only one type of information, namely an identifier of a corresponding block that may be used to reconstruct the sequence in which program blocks are executed, as described in column 6, lines 3-12; and column 6, lines 50-53.

In regards to independent claims 1, 8, 15, 16, and 18, Ayers does not teach or suggest “user trace data commands indicating a selection by a user of user-defined trace data to be written into said user trace data register.” The instrumentation code of Ayers indicates the sequence of execution of a block but does not permit a user to define the type of trace data to be traced. In particular, column 8, lines 10-25, which was cited by the Examiner, describes writing block identifiers in register 413 from which the sequence record can be reconstructed. However, the block identifiers of Ayers provide only one type of information, namely the identity of a block. However, there is no teaching or suggestion in Ayers to utilize the instrumentation code to trace user-defined trace information. Applicant therefore respectfully submits that the instrumentation code of Ayers does not permit a user to make a selection of user-defined trace data to be written into a user trace data register.

Moreover, execution of the instrumentation code of Ayers does not teach or suggest “tracing a subset of program execution attributes of interest to said user” as required by claims 1, 8, 15, 16, and 18. As previously described, Ayers constructs a block sequence record from the identifiers created by the instrumentation code. However, the instrumentation code of Ayers does not permit a user to define a subset of program execution attributes of interest to the user that are to be traced.

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is now in condition for allowance. The Examiner is invited to contact the undersigned if there are any residual issues that can be resolved through a telephone call.


The Commissioner is hereby authorized to charge any appropriate fees to Deposit
Account No. 03-3117.

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